

Getting Started in Kayaking and Understanding the Basics of Kayaks and Kayak Gear

So, you are thinking of buying a kayak and are wondering just where to begin with the process. There seem to be an almost unlimited variety of kayaks to choose from, and the price ranges from a few hundred to a few thousand dollars.

There are fat boats, long boats, skinny boats, round boats, flat boats, sit-on-top boats, sit inside boats. Some boats are ideal for an hour or two on the pond, others specifically for extended offshore excursions and others only for class five whitewaters in rivers or on ocean waves. Some boats are ideal for one small person, and others for two big ones. There are plastic boats, fiberglass boats, wood boats, rubber boats, and even boats that fold up into a suitcase. With all of this in mind, where do you find the right boat amidst all these choices? Well, you start by defining a few specific things:

- Why do you want to start kayaking?
- What will you expect to do with the boat?
- Where will you really use the boat most of the time?
- Will I most often paddle alone, with others, or with another in the boat?
- Should you get a “beginner” boat, or something more advanced?
- How frequently will I use it?
- Where will you store it?
- How heavy and how long a boat can you manage alone?
- Do you need a rudder?
- How much can you afford to spend?

The more honestly you answer these questions, the closer you are to helping yourself find the right boat. If you can comfortably share this information with a qualified and knowledgeable kayak salesperson, you are likely to receive the best help possible and minimize the possibility of buying an unsuitable boat.

Something you must always remember is that each and every boat that has ever been designed is a compromise. There are no perfect boats! The best boat for you will likely be the best compromise. With thoughtful consideration, and a little research effort, you should be able to easily obtain a very good boat to suit your needs

One more bit of decidedly controversial advice, is that if you sincerely feel that you are going to be very serious about whatever category of kayaking experiences you are seeking, and spend a lot of time in your boat, don't be shy about investing in a somewhat more advanced boat. You may be a little challenged by the boat initially, but you will soon transcend this awkward stage and be ready for more performance in your craft. It may therefore be best to move up a level in the beginning. You will save money in the long run, find your skills improving more quickly and your overall enjoyment of the sport enhanced.

Kayaks fall into several different categories.

RECREATIONAL KAYAKS are designed for multiple uses from just poking around the local pond or river, to perhaps even a limited weekend trip. Usually shorter and wider than touring kayaks, they are fairly stable and comfortable for beginners. While because of their shorter length they are easy to turn, they may not “track” or hold a straight course too easily. Many of the entry-level kayaks fall into this category. Recreational kayaks might not be the best choice for extended touring adventures, but they are just great for simple “noodling around” and might be considered good all around boats. Most recreational kayaks are made of molded plastic, therefore very durable and modest in price

TOURING KAYAKS are designed for extended trips, often in wilderness situations. They are longer, faster, have good carrying capacity for camping gear and supplies, track well, and are more seaworthy in offshore or rough water conditions. Many use a rudder or skeg to aid in directional control. (The Term “SEA KAYAK” can sometimes apply to high-end versions of these boats.) They do not turn quite as well as the wider shorter recreational boats, but are generally more efficient to move through the water. Because a touring or sea kayak is likely to be more specialized for its intended use, you will find a multitude of variations in the design, construction, cockpit shape, rigging and options available. You might be expecting more performance and features from your touring boat or sea kayak, and so should really investigate and understand your choices before you invest in one.

SIT-ON-TOP KAYAKS are a style of kayak that does not have a cockpit you sit in and are surrounded by, but feature a rather flat open deck you sit on. This style of boat can appeal to the folks that feel claustrophobic when surrounded by an enclosed cockpit. They are usually extremely stable, although heavier for a given length. They are popular for warm water/weather paddling, but not desirable in cold conditions due to the fact that you are more exposed to the elements. Sit-on-tops make good platforms for fishing and diving. There are some high tech/performance versions of sit-on-tops that are used for almost all use applications, including racing, but these are not very common.

TANDEM KAYAKS are made for two paddlers, each with their own separate paddling stations. They can have two cockpits, or if in the sit-on-top category, have two seats. While they are potentially fast, very stable, provide good storage and carrying capacity, they do require two paddlers to handle and operate with any sort of efficiency. Unless you are sure you will always be paddling with a partner who shares this boat with you, a tandem is a poor choice. They are quite heavy and usually more expensive. You are better off to have two smaller single kayaks if you are not positive you will always have a paddling partner. Tandems are best suited to more open water, rather than “puddle ducking” around in a limited area.

WHITE WATER KAYAKS specifically designed to use on rough breaking white water. They are very short, extremely maneuverable, and have a very rounded shape. They are great fun for their intended use, but a poor choice for flat water paddling as do not track well, difficult to paddle in a straight line, and do not carry sufficient amounts of gear for extended trips.

FOLDING KAYAKS are boats that have a “skin” of waterproof material that will fit tightly over a frame. They offer the convenience of easy portability. You can carry these boats around in a container, and assemble the frame and skin into a boat. These boats fall into the recreational or touring category.

INFLATABLE KAYAKS offer the advantage of easy transport and minimal storage requirements when they are in their deflated condition. They need to be inflated with air before use, and are light and stable. Inflatable boats may not have as efficient a hull shape as a hard boat, or be as fast. They do however offer many conveniences.

Understanding a little about kayak design

The operative word here is “little.” Boat design in general is a very complex subject. The more time you spend in boats, the more you will learn simply from experience, but there are some basics to help you get started.

To better understand hull design, it might be practical to understand something about how the term “stability” applies to kayaks and boats in general. Stability has been described as “designed so as to develop forces that restore the original condition when disturbed from a condition of equilibrium or steady motion.” A simple explanation is the ability in general of the boat to stay flat on the water without tipping over.

Boats do tip or lean over though, and in many cases must tip to some degree to perform well. There are two types of stability measurements that are often discussed when describing a kayak.

The first is **INITIAL STABILITY**. Sometimes called primary stability, this is a measurement of how stable a boat is when it first starts to lean over. Low initial stability will make a boat feel immediately tippy. High initial stability makes a boat feel very stable and comfortable and forgiving when you first sit in it. However as mentioned, all boats DO tip some.

Boats with good **SECONDARY or final stability** are highly desirable. Secondary stability describes the ability of the hull to become increasingly stable the more and more it tips or leans. Secondary stability kicks in when the boat leans over beyond the ability of the initial stability to continue to support it upright. A boat with low initial stability and high secondary stability will feel tippy at first, but once it tips a bit it will quickly stiffen up and want to lean over less and less. This can be a good performance feature in sea kayaks that simply have to rock and roll in accordance with rough sea conditions, but are able to hold themselves ultimately upright. You can imagine what a boat with both low initial and second stability might be like. Conversely a boat with high initial and secondary stability may feel very reassuring. It's not all that simple though.

All hull designs are different, stability factors different, and designed that way by intention. Do not be put off by any pre-determined notions of generalized stability factors. To really understand a boat's stability performance you simply must paddle it in a variety of circumstances and see how it feels to you.

TRACKING is a term that describes a kayak's ability to carry itself along in a straight line without wandering off from side to side. A boat that tracks well is a lot less effort to paddle, as you do not waste energy making correcting strokes to control the direction of the boat.

SOME (VERY) SIMPLE BASICS

Speed - a function of length, width and hull shape

Tracking - ability of the boat to go straight

Maneuverability - ability of the boat to turn easily

Initial stability - effort it takes to lean the boat off an upright position

Secondary stability - effort it takes to tip the boat over

SOME TRADE-OFFS

Tracking vs. maneuverability

Initial vs. secondary stability

Speed vs. stability

Hull Shapes:

FLAT BOTTOM boats usually have higher initial stability, but unless the sides flare out a bit they will have very low secondary stability. Flaring, or widening the sides out as they become higher off the water adds wonderful secondary stability.

ROUND BOTTOM (true circular shape) boats will have usually have low initial stability, but they if have sides that flare out and a width at the deck that is greater than the width at the water line, technically they can develop the most secondary stability. Do not fear round bottom boats simply because of the perception of shape and stability

V-BOTTOM boats often feel tippy until the boat leans a bit one way or the other, and then they feel quite a bit like flat bottom boats (which they then become). V-bottom boats often track well.

It is rare that you will ever find a boat that is designed with only one basic bottom shape as described above, but rather it will incorporate all of the above shapes. Probably the most common bottom shape has a slight V in it's center, then fairly flat sections that become very round as they turn upwards toward the sides of the boat, and then have some flare as the boat reaches it's ultimate height above the water.

CHINES are the section of the hull where the hull turns upward from the horizontal bottom and transitions into the vertical sides of the boat. A sharp or nearly right-angled chine is called a “hard chine”, while a curved rounded chine is

called a “soft” chine. Hard chines usually give wonderful initial stability, but once past that point can be very tippy. Soft chines offer lower initial stability, but greater secondary stability, and a smoother transition from initial to secondary stability.

FLARE describes how the sides of the boat are angled outwards away from the chine as they rise towards the deck. The more flare, usually the more secondary stability.

LENGTH Kayaks range from as short as 8' to over 20'. When discussing the advantages and disadvantages of length, you should consider the issues in two categories: performance in the water and handling out of the water.

A longer boat will be faster, far more efficient to paddle, more stable, track better handle irregular sea conditions better and carry more weight and gear. A shorter kayak is likely to be less expensive, less clumsy to handle out of the water, and perform well if you need to be making a lot of short turns.

WIDTH The wider a boat is, the more stable it is. Wide boats may make beginners feel more comfortable, but width can compromise performance. A wide boat is usually heavy and slower than a narrower boat of the same design. The narrower a boat is, the less stable it is initially. Narrow boats are much more efficient as they have less area of surface to drag on the water. They allow you to perform a more economical and precise paddle stroke by bringing your paddle closer to the center of the boat. For simple reference, a good sea kayak may be as narrow as 21" wide, whereas some recreational kayaks are up to 28" wide.

SYMMETRY of a hull shape describes the overall shape of the boat from bow to stern when you observe it from above. If the boat were tapered out evenly towards both the bow and stern from the center of the boat, then it would be “symmetrical” or mathematically even in shape on each of the fore and aft halves. In order to achieve certain performance features like speed and directional control, a boat may be more full in the front than back, or vice versa. These hulls are “asymmetrical”. Hulls with the greatest part of the hull forward are called **FISHFORM** and hulls with more volume aft are called **SWEDEFORM**. There are great debates about the relative merits of the different versions of symmetry, but both versions work very well however.

TAPER refers to the shape of the boat where the front of the boat cuts through the water, and the stern where the water leaves the hull. Fine narrow shapes here will be more hydrodynamically efficient, but not provide much buoyancy in the bow to lift the hull over waves, or give you much storage space inside the boat.

ROCKER describes the amount of upward curve of the bottom of a kayak. If you are looking at the side view of the bottom of a kayak as it sits on a perfectly flat plane, you will see that as your eye follows the bottom towards the ends of the boat, it will sweep upwards, lifting off the plane. All kayaks have some rocker. The more rocker and upswept the ends, the easier the boat will be able to pivot around it's center and turn left and right in the water. The less rocker, the less easily the boat will turn, however it will track and run more effortlessly in a straight line which is also desirable.

VOLUME is a measurement of the size of the interior shape of a kayak. A large volume boat can support a large paddler and an ample amount of gear, as simply by virtue of its size it has more buoyancy. The trades off might be that the larger volume boat probably would be a slightly heavier boat.

WEIGHT Weight is one of the most important issues, and although seemingly unrelated to these descriptions of hull shape and design, a boat's weight is often one of the most important results of the design and construction process. Width, volume, and hull shape all contribute towards hull weight. The biggest single factor in creating hull weight however is the material from which it is made. Plastic boats are usually quite a bit heavier than fiberglass boats. High tech fiberglass laminates, called “composite boats” are lighter again. Wood boats can fall into any weight range, but usually are in the lighter categories. Inflatable, rubber and “skin” boats might also be light.

Weight is a factor in performance on the water, as a lighter a boat is easier to maneuver. Weight's biggest role however may well be in the ease of handling of the boat during the loading/unloading off your vehicle, carrying it to the water, launching and hauling, and storing it. If a boat is easy to use, you will be inclined to use it! If a boat is light enough to manage alone, you will find more time to use it because you can go paddling alone. If economically possible, and practical considering the intended use of the kayak, opt for the lighter boat.

Kayak Materials

Over the centuries kayaks have been built from a wide variety of materials ranging from animal skins stretched over a wood frame, to space age plastics. Today, almost all those options still exist, but the most common materials used are synthetics in one form or another.

PLASTICS

Polyethylene plastic, molded easily into a boat is the most common material used today. Plastic is inexpensive, tough and durable and takes a beating. It usually results in the heaviest boat per square foot of hull surface however. There are two types of polyethylene, linear and cross-linked. Linear is made up of long strands of material. Cross-linked is composed of short strands that are chemically bonded together. Linear polyethylene is lighter, stronger, recyclable and easier to repair than cross-linked. Cross-linked boats are able to withstand impact better, but the hull is not likely to be quite as stiff. Both have proved to be very good.

Some kayak companies, Eddyline and Hurricane to name a couple, have recently developed polycarbonate plastics that are a little more like composite boats

A simple description of the manufacturing process of plastic boats might be to say that the plastic, in one form or another, is heated inside a metal mold that is shaped like the boat. After the plastic has spread evenly all over the inside of the mold, it is cooled down and removed from the mold. Instant boat! Well, not quite, but it is a very efficient and relatively inexpensive process as compared to the more hand crafted fiberglass, composite and wood boats.

Plastic boats have the advantage of being approx. only 2/3 the price of composite boats, but the disadvantage of a significant increase in weight, perhaps weighing 15-20 percent more.

COMPOSITE BOATS

There are several variations on the process, but the simplest way to describe the construction of a fiberglass or composite boat is to imagine how an apple pie is made. You put crust and filling into a pie plate and bake it until it is firm. Boats are built inside molds shaped like a boat. Think of the molds as the pie plates. There is a mold for the hull and a mold for the deck. The first thing that is applied to the mold is a colored fiberglass liquid called "gelcoat." Think of the gelcoat as the pie crust. It becomes the color you see on the outside of the boat. (Boats are built from the "outside-in") Then comes the filling. A synthetic fiberglass fabric is placed inside the mold and then carefully saturated with a synthetic liquid called "resin." The resin was pre-mixed with an agent called "catalyst" that generates a thermo setting process and causes the resin to harden. The saturated, hardened resin and fiberglass becomes the hull we know of as "fiberglass." Once hardened, the hulls and decks are removed from the molds and attached to each other. Sounds simple, but the process involves many labor intensive steps.

This method of boat building is called "hand laid up fiberglass." The careful use of just the right amounts and ratios of the resins and fabrics, combined with conscientious workmanship will produce a very strong and light boat.

To raise the integrity of the laminate up another level and reduce the weight even further, a system of laminating called

"vacuum bagging" can be used. Negative air pressure is created (the air is sucked out) under a sheet of plastic that is placed over the still wet unhardened laminate while in the mold. This draws the laminate extremely tight against the mold. This method uses less resin, which further reduces weight, and compresses the laminate into a tighter and stronger hull.

There are a few different types of resins and fiberglass fabrics that can be used. Polyester resin is the basic level, epoxy resin is at the high end and extremely strong, and vinylester resin is a hybrid between the two.

Fiberglass fabrics also vary. Standard fiberglass fabrics are very strong, but new "space age" fabrics like carbon fiber and kevlar are remarkable.

When you combine epoxy resin with carbon or kevlar (or a combination of both!) in a vacuum bag laminate, you have the strongest and lightest kayaks of all. They will also definitely be the most expensive. In spite of their strength however, and this may sound like a contradiction, they may not stand up well to the rough general abuse and banging about that kayaks have to endure when handling them out of the water. The good news is though that fiberglass boats are easier to repair than polyethylene boats

Fiberglass/composite boats can be molded into very fine, sophisticated and efficient shapes. They are remarkably good boats that with care and maintenance will endure, and give you great performance.

WOOD BOATS are truly beautiful, and wood is still a superb material for boat building. Wood boats can be strong, light and great performers. They can be built from either plywood panels or long thin strips of wood glued together. In either case, modern wood boats are usually covered with a sheathing of fiberglass and epoxy resin, further strengthening the boat and making them reliably watertight. Wood boats are usually expensive due to the tremendous amount of intensive labor involved, but there are several companies that sell kits and plans for amateur home construction.

INFLATABLE RUBBER BOATS have come a long way in recent years and are far more upscale than the toy boats of the past. They are now quite durable and have the advantage of being light, compact and easily transportable when deflated. Not as fast as hard boats when used on flat water, they are best on rivers with strong moving current. Folding boats incorporate a waterproof fabric skin that stretches over a wood or aluminum frame that you assemble. They can be broken down and transported or stored easily in a couple of duffel bags. Assembly is not too difficult or time consuming, considering the overall benefits. While generally not thought of as much of a performance boat as a hard kayak, there are some real devotees of folding boats, and they have made some remarkable ocean journeys.

How should your kayak fit?

It's possible you will be in your kayak for several hours at a time. You should imagine that you are "wearing" your kayak, and so good fit and feel are imperative. You will make contact with the boat with your butt on the seat, your back on the backrest, your hips on the sides of the seat, your knees on the underside of the deck and your feet on the foot braces. Proper contact and support in all these locations will improve your control of the boat, as well as your comfort. In order to more easily execute an Eskimo roll, you need to have good contact, especially in the knee and hip areas.

There are a variety of hip, thigh and knee bracing systems to be found in kayaks, and they can be embellished on by adding additional gear, or glued in foam padding where necessary.

Do consider the cockpit size. Some recreational kayaks have very large open cockpits with minimal support features other than a basic seat. There's room for all sorts of sporting gear and the freedom to use it unencumbered. A sea kayak usually has a smaller and much tighter and better fitting cockpit, although it is good to have room to stretch your legs out once in a while. Performance in a whitewater kayak depends on a very tight fit so that body movement can help control the boat. While the fit should be reasonably tight, you should be able to comfortably slip in and out of the boat, and be able to easily exit the cockpit in the case of a capsize. A smaller cockpit is considered more seaworthy, as it is less likely to let in and hold large amounts of water in the event of rough weather or a capsize. Cockpit size and fit are certainly subjective, and you should spend some time sitting in and paddling a boat to determine how it feels to you.

Spray Skirts

A spray skirt is a necessary piece of equipment if you are going to do any serious paddling. It is a waterproof skirt with a very high tube like waist that fits around you and then spreads outward to grip very tightly over the edge of your cockpit's rim (called the combing). It's job is to keep water from getting in your boat, both incidental spray or major volumes of it if you should get hit by a wave, or lean over so far that the cockpit goes under water.

Spray skirts are made from several types of material, and there is often debate about the merits of each. Nylon, PVC, neoprene and even kevlar are all used in spray skirts, the material all being waterproof. Typical arguments might be that neoprene is more waterproof but warmer, that nylon is more comfortable, or that one type or another won't let water leak in around the cockpit combing, etc, etc. (Kayakers are not hesitant to express their opinions on gear, but that's a good thing!) There are lots of different kinds of skirts to choose from, so be sure to try it on for fit, both on you and your boat.

On the front of a spray skirt you will find a loop of

material called a "GRAB LOOP" and it is a critically important part of your kayak equipment. The grab loop is used to release the spray skirt, and you, from the cockpit in the event you need to exit the boat in the event of a capsize. It should be large enough to grab easily, be strong, and always easy to locate, even if you are upside down in the water. Always be sure that your grab loop is not tucked in under your spray skirt, and is always free from entanglement and accessible.

Newcomers to kayaking, anxious about the fears of capsizing to begin with, are often completely alarmed about the idea of a spray skirt locking them in the boat and further preventing escape. Not to worry! A properly fitted skirt, combined with a little knowledge of how to use it, will easily release itself and you from the kayak.

Rudders and Skegs

Will you need a rudder on your boat? Welcome to one of the great debates in the kayak world. Well, YOU might need a rudder to help you keep the boat going straight, or the boat itself might require a rudder to have decent steering control, or you might just want one to help the boat handle well in a few particular situations. In a magazine article, a famous kayak designer once stated that no designer ever wanted to have to add a rudder to their design, and that it was only an after thought if the handling characteristics of the boat weren't as desirable as hoped for. Some consider them a necessary evil, some swear by them and some sweat at them.

One important thing to remember is that it should not be necessary for you to use a rudder to control your kayak. You should most definitely learn the proper kayaking paddling and handling techniques without depending on the use of a rudder.

A rudder can really help control a kayak's tendency in strong winds to either turn up towards the wind, or be blown off course away from the wind. It also helps the boat run straight down wind and in particular down the face of waves, and not broach off to one side. You control a rudder by having your feet rest on two movable foot pedals that connect to cables running back to the rudder. A rudder system is the most vulnerable part of a kayak, and should be very strong and well designed.

A skeg is a small fin, sort of a fixed rudder, which is on the bottom of the aft end of the boat. It will does not turn or steer the boat, but rather just helps to keep it steering straight (directional control). A much simpler system, the skeg is enclosed in a watertight slot in the boat's bottom. When the skeg is not lowered and not in use, it is up inside the boat in the slot or skeg box. To lower it or raise it up again, you use a control line that leads from the skeg to your cockpit. This skeg system also should be very strong.

Hatches

Hatches built into the deck of a kayak allow you to access gear stored in the boat. Watertightness, size, shape, design, construction, location, and the number of hatches in a kayak are important things to consider.

Never underestimate the power of the sea, and that a wave could break or blow off a hatch cover leaving you vulnerable to disaster. Safety leashes or other devices connecting the hatches to the boat are a good thing. In spite of all the good intentions of the manufacturers, it is the rare hatch that doesn't leak a little when exposed to extreme conditions, so you should still carry your gear in waterproof bags. Look to see if the deck of the boat has little drain slots to carry puddles of water away from the hatches if they are recessed down in the deck a bit.

If you have to fit camping gear or large items through the hatches, then be sure they will be large enough.

Bulkheads

Bulkheads are walls that go across the boat and divide it into different watertight sections. They also support the deck and add strength to the boat. These sections seal off the boat's ends and provide areas of storage as well as flotation. If there are no bulkheads in a kayak and it is open from bow to stern and it fills with water it will wallow hopelessly or sink in the event of capsizing. If you have only one bulkhead in the rear behind your seat, you are still vulnerable, as the boat will likely be still fairly unmanageable with the large cavity of the bow and cockpit full of water. Having two bulkheads, one behind the seat and one forward just beyond your feet is the best option, and offers the most safety. If you have only one or no bulkheads then you should have air filled flotation bags in the boat to provide emergency buoyancy. Kayaking IS a water sport, so keeping it in mind that bulkheads and hatches often (usually!) leak, carry and store all your gear in waterproof bags.

Deck Rigging

Deck rigging describes the lacework of elastic cord and other lines found on the deck of a kayak. The elastic cord is designed to hold items on up the deck of the boat that you wish to have easily available, such as water bottles, charts, etc., and also emergency items like your paddle float and bilge pump. Entry level recreational boats might only have a minimum of this rigging, while high-end sea kayaks will have an abundance of it. A strong line of non-stretch material running around the entire perimeter of the deck is very helpful if you are trying to get control of your kayak while swimming beside it in a rough sea. A well designed serious tow line with a snap on the end and the deck hardware set up to operate it, can be anything from convenient to a life saver.

Waterproof deck bags, up to the size of a small backpack that clip or strap onto your deck rigging can be added to carry extra gear if necessary.

Safety and other gear

PFD (personal flotation device, or life jacket). Just three bits of advice about PFD's: Buy a very good one. Buy a comfortable one that fits properly. Most important of all, ALWAYS WEAR IT !!!!

In addition to the PFD you should have a paddle float to assist you in re-entry into the boat, and a bilge pump and sponge to remove water from the boat. A good comprehensive list of other items would include a good hat, serious sunglasses, sun block, non breakable containers of liquid(s), compass, signal mirror, signal flares, whistle, stainless steel knife, first aid kit, some spare line and of course the all time favorite fix it item: duct tape.

Clothing for paddling is a lengthy topic and certainly would contain a long list of items. The first thing to remember is always to dress for immersion in the water, never just for the air temps! If the water is below a temperature that you can't survive in after only a few minutes, then wear some form of a wetsuit. If the water is cool enough to cause major discomfort when immersed, then consider wearing one of the many brands of "Hydrowear" or "Hydrogear". This is a wetsuit-like item, that rather than being hot and restrictive like a rubber wetsuit, is a combination of an outside layer of lycra or other stretchable material and a poly-fleece like material on the inside. "Hydrowear" is surprisingly comfortable in all but very hot weather. The ultimate in protection is a dry suit. Dry suits are expensive waterproof suits that keep you dry and warm even when immersed, and are suitable for extreme conditions.

Remember this slogan: Cotton kills. While a great material for land wear on a hot day, cotton takes way too long to evaporate moisture when wet, and can make you desperately cold from wind chill in a very short time. A better choice is a synthetic material like polyester that wicks away moisture quickly. If you wear synthetic shirts and shorts you will be more comfortable and safer.

Remember, there are only two kinds of kayakers: those who've already been really wet in the boat, and those who are going to be really wet in the boat some day.

Paddle tops or paddle jackets are like foul weather or rain gear especially designed for kayaking. Paddle tops are the outer ware of choice for most kayaking in anything but ideal warm weather. They need not be used just for rainy days, as they will keep you warm in windy, cool conditions and prevent you from being saturated by wind driven spray. They are all supposed to be waterproof, but some are decidedly superior to others, and you seem to get what you pay for in this category. Wear it for a short while in the store before you buy it to be sure it is plenty comfortable and has room for another warm layer beneath. Check out the pockets and other features offered, and look for reflective material built in. Check out the jackets made from breathable fabrics, as they are much more comfortable, although more expensive.

Paddle footwear comes in the form of sandals, water shoes, wet suit boots and everything in between. Be sure that the sole is as non-skid on wet surfaces as possible, and that they are either watertight and keep your feet truly dry, or as in the case of sandals that they will let water drain out. If they are laced on then always be careful that the laces are not dangling around and able to get snagged in your foot braces or rudder pedals and trap you in the boat if you need to make an emergency exit. Bare-foot doesn't do it in a kayak. Use proper footwear.

Paddles

One could write a small book just on the subject of paddles, but here is a very brief discourse on the subject:

Spend as much time considering your choice of a paddle as you do your kayak. Combined with your body, the paddle is the engine that moves the boat. A really good paddle is more beneficial than you can possibly imagine. A poor paddle can be exhausting to use. It is likely that you may change kayaks more often than paddles, so invest in a good paddle you can keep for a long time. You won't regret the expense.

Wood paddles have been built and used for centuries, still are today, and can be exquisitely beautiful wonderful performers. Lovers of wood paddles say that the soft feel of a wood paddle shaft in your hands is wonderful and exerts less stress on your body than a hard metal or plastic shaft. Many paddles of Native American and Inuit design and influence are still the rage today.

Paddles with plastic blades and plastic or aluminum shafts are affordably priced and adequate for those on a tight budget or who have minimal performance requirements

Fiberglass paddles are available in a huge range of materials and prices, the most exotic, expensive and lightest being made in epoxy and carbon/graphite or kevlar. These paddles are strong, light and less subject to damage and abuse than wood.

Blade shapes vary widely, and very generally speaking, the wider fuller blades will grab more water and are more powerful, but will exert more strain on your muscles and joints when used hard over a long time period. The wider blade can give you plenty of support when using the paddle to "brace" yourself. Longer and narrower blades may not be as potentially fast, but sometimes lighter in the ends, easier through the water and more comfortable for "touring" or when on the water for extended times. The narrower blade shape will be less likely affected by strong winds when swung overhead during the paddle stroke.

You will notice that there is often a larger percentage of the blade's total area on one side of the centerline (C/L) of the paddle than the other side. This blade shape is called "asymmetrical", as opposed to a "symmetrical" blade that has equal amounts on both sides of the C/L. The concept of the asymmetrical blade is to eliminate the wobble or "flutter" you usually feel when a paddle blade is moved through the water. It seems

that most all paddles flutter, some a barely noticeable tiny little bit and others a great deal. Flutter is inefficient and may cause you to have to hold the shaft tighter, which is wasted effort.

The shaft of a good paddle is not truly round, but oval where your hand holds it. Because of the shape of your hand, this is a more comfortable and less tiring grip. Ovals vary with different paddles.

The joint where the two halves of a two-part paddle connect is called the "ferrule". Check carefully to see that the ferrule is strong and fits together without being either too tight or too loose.

The length of a paddle is determined by several factors including your height, the width of the boat, the type of paddling you will be doing (Example: whitewater vs. recreational), and even the style of your paddling. Seek experienced opinions and guidance when deciding paddle length.

Weight is one of the most important considerations when choosing a paddle. To prove the point, imagine that one paddle weighs 46 ounces. That means that each time you swing the blade overhead you lift one half that weight, or 23 ounces. Let's say you make 20 strokes per minute. That means you will lift 460 ounces or almost 29 pounds each minute, and 1725 pounds each hour. If you paddle for three hours you will have lifted 5175 pounds or over two and one half tons of paddle weight! Now let's go paddling with a 30 ounce paddle for three hours and do the math. 15 ounces x 20 strokes per minute = 300 ounces or about 19 pounds per minute. Paddle for an hour and you will lift 1125 pounds, and again paddle three hours and the total will be 3375 pounds. What was the difference over three hours? 1800 pounds, or almost a TON!!! Simple conclusion: invest in the lightest paddle if you can reasonably afford to.

There are so many different kinds of paddles, kayaks, and paddlers with different bodies. What works well for one paddler might not be right for another, so listen to the opinions offered, but still tests a paddle yourself before buying.

How much will all this equipment cost me ?

Let's base this comparison shown below between the lowest amount you might be able to reasonably spend on each of the items listed below, to a high range price. **Of course the amount you can spend on "misc. gear and clothing" is almost unlimited.

KAYAK (single)	\$400 to \$2600
PADDLE	\$50 to \$400
SPRAY SKIRT	\$60 to \$135
PFD	\$50 to \$150
MISC. GEAR & CLOTHING	\$100 to \$500
<i>Totals</i>	\$660 to \$3785 (?)

Quite a range! Well, the good news is that somewhere in here is the right boat for you, and it need not be in the high range of expense. In fact, most kayakers spend only a very modest amount to get pretty well set up with a good boat and gear. Armed with the right information and the desire to be thorough in your search, you will have a huge advantage in making the right selections of kayak and gear.

At the risk being redundant, as it has been mentioned so often here, test out as much gear as possible before you make a decision to buy. Paddle lots of boats, and don't be hesitant to spend more than just a few minutes in the boat. You might even try adding some extra weight in the boat to simulate expedition gear if that is what you will be doing. A good kayak shop and its staff will be patient and helpful with you, and accommodate your questions and offer demos. They often have special "demo" days. Also look for kayak symposiums in your area, as many manufacturers will be present with a full line of boats to demo.

In conclusion

Apologies and or thanks for many ideas "borrowed" to assemble this information. Regrets for any off-center opinion or information issued here. Omissions and misstatements of particular characteristics or performance features of equipment were the probably the result of personal opinion and personal experience. Hopefully you will soon begin to acquire enough boating time and experience to form your own opinions and philosophy.

One would be well advised to remember that boats are ALL good. It's just that some are BETTER than others!

Kayaking is truly a wonderful sport. It does not require a huge investment in either time or money, and is not restricted by age, gender or athletic ability. As we all become more compromised by the pressures of "modern life", kayaking offers a wonderful antidote to its incivility. You can kayak alone, or with friends. You could cross an ocean or just a little pond. You can go out for a day, perhaps a weekend adventure, or find complete satisfaction in just noodling around for a half-hour or so. You may never get closer to the beauty and mysteries of the marine environment than in a kayak. You can exercise your body and renew your soul. Water is just such great stuff to play with. Don't let another summer go by, jump in and join the fun!

Remember the famous words of that great philosopher, Ratty, from the book "Wind in the Willows" who said, "There is nothing - absolutely nothing - half so much worth doing as simply messing about in boats."

See you on the water!